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10/522,236	01/25/2005	Hisashi Miyamori	052033	1625

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WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP
1250 CONNECTICUT AVENUE, NW
SUITE 700
WASHINGTON, DC 20036

EXAMINER
RASHID, DAVID

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *7/18/2008*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-8 and 10* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-8 and 10* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

[1]　　Applicant's arguments received on July 18, 2008 pointed to certain deficiencies of the prior art cited in the Final Office Action mailed on April 18, 2008. In response to applicant's arguments, the following Office Action serves to replace the previous action and serves to clarify the examiner's position. A new shortened statutory time period of three (3) MONTHS and a new statutory period for reply is restarted to begin with the mailing date of this letter. The claim amendments after final was not be entered, and the following Office Action will address the claims as presented on January 22, 2008.

Where for any reason it becomes necessary to remail any action (MPEP § 707.13), the action should be correspondingly redated, as it is the remailing date that establishes the beginning of the period for reply. Ex parte Gourtoff, 1924 C.D. 153, 329 O.G. 536(Comm'r Pat. 1924). For Image File Wrapper (IFW) processing, see IFW Manual.

MPEP 710.06

A supplementary action after a rejection explaining the references more explicitly or giving the reasons more fully, even though no further references are cited, establishes a new date from which the statutory period runs.

MPEP 710.06

Amendments

[2]　　This office action is responsive to the Claim Amendment and Applicant Arguments Made in an Amendment received on July 18, 2008 and Jan. 22, 2008. Claims 1-8 and 10 remain pending.

Claim Objections

[3]　　In response to applicant's claim objections amendments and remarks received on January 22, 2008, the previous claim objections are withdrawn.

Claim Rejections - 35 USC § 101

[4]　　In response to applicant's claim 35 USC § 101 rejection amendments and remarks received on January 22, 2008, the previous claim 35 USC § 101 rejections are withdrawn.

Claim Rejections - 35 USC § 103

[5]   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

[6]   **Claims 1-2** and **10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ball

Tracking and Virtual Replays for Innovative Tennis Broadcasts, 15th International Conference on

Pattern Recognition, 2000, Proceedings, Vol. 4, pg 152 – 156 (*hereinafter* "Pingali") in view of

Pizano.

Regarding **Claim 1**, while *Pingali* discloses an image recognition apparatus ("[a] general

purpose computer" at p. 152, left column) for recognizing movements of players matched against

each other (the tennis match involves at least two players) between domains partitioned with

such an obstacle as net in a sport match or game (the tennis match must have a net and

partitioned domains) from contents including a television program being telecasted to show the

sport match or game ("live television broadcasts" at p. 152, left column), an image material in an

uncompleted state for broadcasting and contents recorded in such a recording medium as a VTR

(Introduction, p. 152; fig. 2), the image recognition apparatus comprising:

a score information obtaining section ("[v]irtual [r]eplays and [v]isualtization" section at

p. 154) configured to obtain score information ("includes score-based queries" at p. 154, right

column; ALSO score information includes recorded paths of the tennis ball (*e.g.*, fig. 3))

indicative of scores ("includes score-based queries" at p. 154, right column; ALSO the path of

the ball is indicative of scores of the players) of the respective players which vary as the sport

match or game proceeds;

a play event information obtaining section ("[v]irtual [r]eplays and [v]isualtization"

section at p. 154) configured to obtain play event information (play event information would

comprising the path of the tennis ball, including specifically the exact location where the tennis

ball hits the court) indicative of a characteristic movement (the path of the tennis ball is

"indicative" of a characteristic movement of each of the players; *i.e.*, a tennis ball path

approaching the opposite side of the court indicates that a specific player hit it, a characteristic

movement) of each of the players from picture information (*e.g.*, fig. 3) included in the contents,

the picture information containing images of the obstacle and the players (*e.g.*, fig. 6); and

an image substance recognizing section ("[v]irtual [r]eplays and [v]isualtization" section

at p. 154) configured to make a comparison (the comparison of the tennis ball position before

and after it hits the ground must be made to determine the position where tennis ball hits the

ground) between a score information item obtained immediately before a point in time (*e.g.*, the

path of the tennis ball before hitting the ground at fig. 3) of generation of the play event

information (*e.g.*, the exact location where the ball hit the ground at fig. 3) and a score

information item obtained immediately after the point in time (*e.g.*, the path of the tennis ball

after hitting the ground at fig. 3) and make reference to a result brought by the play event

information (play event information would comprising the path of the tennis ball, including

specifically the exact location where the tennis ball hits the court), thereby recognizing a

substance (the substance being the exact location on the tennis court) of an image provided by

the play event information, *Pingali* does not teach wherein the score information itself is displayed on a screen.

Pizano discloses an apparatus for detecting and interpreting textual captions in digital video signals (fig. 6) that teaches wherein the score information itself is displayed on a screen ("3) SPORTS/TRANSPARENT" in fig. 1; the score in fig. 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the screen of *Pingali* to include score information as taught by *Pizano* "to identify the collection of video frames that contain text captions.", *Pizano*, 5:54-56 and "to create a score browser which would enable a person to move directly to specific portions of the video", *Pizano*, 1:61-63.

Regarding **Claim 2**, while *Pingali* in view of *Pizano* disclose the image recognition apparatus according to Claim 1, *Pingali* in view of *Pizano* do not teach wherein the score information obtaining section is configured to obtain the score information from at least one of the picture information included in the contents, sound information including commentary voice of a commentator, and data information transmitted as multiplexed on radio waves during broadcasting.

Pizano discloses an apparatus for detecting and interpreting texual captions in digital video signals (fig. 6; fig. 7; fig. 10) that teaches wherein a score information obtaining section (section responsible for fig. 6, fig. 7, fig. 10) is configured to obtain the score information (bottom pictures of the score in fig. 10) from at least one of the picture information (top picture in fig. 10) included in the contents (the contents being everything displayed at the top picture in

fig. 10), sound information including commentary voice of a commentator, and data information transmitted as multiplexed on radio waves during broadcasting.

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the score information obtaining section of *Pingali* in view of *Pizano* to include configuring to obtain the score information from at least one of the picture information included in the contents, sound information including commentary voice of a commentator, and data information transmitted as multiplexed on radio waves during broadcasting as taught by *Pizano* "to identify the collection of video frames that contain text captions.", *Pizano*, Col. 5, lines 54 – 56 and "to create a score browser which would enable a person to move directly to specific portions of the video", *Pizano*, 1:61-63.

Regarding **Claim 10**, Claim 1 recites identical features as in Claim 10. Thus, references/arguments equivalent to those presented above for Claim 1 are equally applicable to Claim 10.

[7]   **Claims 3-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Pingali* in view of *Pizano* and <u>Automatic Classification of Tennis Video for High-level Content-based Retrieval</u>, Proceedings of the 1998 International Workshop on Content-Based Access of Image and Video Databases (CAIVD '98), 1998, pp 81 – 90 (*hereinafter* "Sudhir").

Regarding **Claim 3**, while *Pingali* in view of *Pizano* disclose image recognition apparatus according to Claims 1 or 2, further comprising:

a domain item extracting section ("[v]irtual [r]eplays and [v]isualtization" section at p. 154) configured to extract instrument information on an instrument moving between the domains

to serve as an object of score count in the sport match or game (an ace by Sampras in fig. 3 was within the tennis boundary domain, thus a scoring count)

Pingali in view of *Pizano* does not teach a domain item extracting section configured to extract from the picture information facility information including information on the obstacle, information on the domains and information on boundary lines between the domains and an area outside the domains, and player's position information indicative of a player's position; rule information storage section configured to store rule information on the sport match or game; and basic movement storage section configured to store basic movement information on players' characteristic movements generalized in a sport of concern, wherein the play event information obtaining section includes a play event information determining section configured to determine a play event information item on a play event characteristic of each of the players included in the picture information as the play event information based on domain items extracted from the picture information, the rule information, and the basic movement information stored in the basic movement information storage section.

Sudhir discloses an automatic classification of tennis video for high-level content-based retrieval (Introduction, pg 81) that teaches

a domain item extracting section (fig. 3; Table 2) configured to extract from the picture information facility information including information on the obstacle (dashed line in fig. 7), information on the domains and information on boundary lines between the domains and an area outside the domains (fig. 7), and player's position information indicative of a player's position ("Player Tracking Module" in fig. 1);

rule information storage section ("court-line detection module" in fig. 1 for storing rules

on court-line boundaries) configured to store rule information on the sport match or game; and

basic movement storage section ("Player Tracking Module" in fig. 1) configured to store

basic movement information on players' characteristic movements generalized in a sport of

concern, wherein a play event information obtaining section ("High-level Reasoning module" in

deciding plays like "high-level events like baseline-rallies, passing-shots, serve-and-volleying

and net-games" in s. 9, p 89) includes a play event information determining section configured to

determine a play event information item on a play event characteristic of each of the players

included in the picture information as the play event information based on domain items (the

boxes outlining the players on the right side of fig. 6 are the domains) extracted from the picture

information, the rule information (fig. 7), and the basic movement information stored in the basic

movement information storage section (fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made for the apparatus of *Pingali* in view of *Pizano* to include a domain item extracting

section configured to extract from the picture information facility information including

information on the obstacle, information on the domains and information on boundary lines

between the domains and an area outside the domains, and player's position information

indicative of a player's position; rule information storage section configured to store rule

information on the sport match or game; and basic movement storage section configured to store

basic movement information on players' characteristic movements generalized in a sport of

concern, wherein the play event information obtaining section includes a play event information

determining section configured to determine a play event information item on a play event

characteristic of each of the players included in the picture information as the play event

information based on domain items extracted from the picture information, the rule information,

and the basic movement information stored in the basic movement information storage section as

taught by *Sudhir* as "there is dire need for algorithms that are able to automatically infer high-

level content from data.", *Sudhir*, Introduction, p 81.

Regarding **Claim 4**, while *Pingali* in view of *Pizano* and *Sudhir* disclose the apparatus

according to Claim 3, *Pingali* in view of *Pizano* and *Sudhir* do not teach wherein the player's

position information is position information indicative of a domain containing each of the

players and the instrument constantly held and used by the player.

Sudhir discloses an automatic classification of tennis video for high-level content-based

retrieval (Introduction, pg 81) that teaches wherein the player's position information is position

information indicative of a domain containing each of the players and the instrument constantly

held and used by the player (the player, the tennis racquet, and tennis ball at the point of impact

are all in the boxes (domain) on the right side of fig. 6).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made for the apparatus of *Pingali* in view of *Pizano* and *Sudhir* to include wherein the

player's position information is position information indicative of a domain containing each of

the players and the instrument constantly held and used by the player as taught by *Sudhir* as

"there is dire need for algorithms that are able to automatically infer high-level content from

data.", *Sudhir*, Introduction, p 81.

Regarding **Claim 5**, *Pingali* discloses wherein the domain item extracting section

("[v]irtual [r]eplays and [v]isualtization" section at p. 154) is configured to extract the player's

position information (the origination of the path of the tennis ball in fig. 2 and fig. 4 is the

player's position information) from the picture information (fig. 4) based on the facility

information (coordinates to track/detect/match instruments, obstacle, and boundaries in fig. 4 and

fig. 2) extracted by the domain item extracting section.

Regarding **Claim 6**, *Pingali* discloses wherein the domain item extracting section

("[v]irtual [r]eplays and [v]isualtization" section at p. 154) is configured to extract the instrument

information from the picture information (fig. 2, fig. 4, path of the tennis ball) based on the

facility information (coordinates to track/detect/match instruments, obstacle, and boundaries in

fig. 4 and fig. 2) and the player's position information (the origination of the path of the tennis

ball in fig. 2 and fig. 4 is the player's position information) extracted by the domain item

extracting section.

Regarding **Claim 7**, while *Pingali* in view of *Pizano* and *Sudhir* disclose the apparatus

according to Claim 3, *Pingali* in view of *Pizano* and *Sudhir* do not teach wherein the play event

information obtaining section includes a play event index information output section configured

to output plural play event information items determined by the play event information

determining section as arranged in a time sequence.

Sudhir discloses an automatic classification of tennis video for high-level content-based

retrieval (Introduction, p. 81) that teaches wherein the play event information obtaining section

includes a play event index information output section (Table 3, p. 88) configured to output

plural play event information items ("High-level Annotation" column in Table 3) determined by

the play event information determining section as arranged in a time sequence (the table suggests

the arrangement of time sequence).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made for the apparatus of *Pingali* in view of *Pizano* and *Sudhir* to include wherein the play

event information obtaining section includes a play event index information output section

configured to output plural play event information items determined by the play event

information determining section as arranged in a time sequence as taught by *Sudhir* as "there is

dire need for algorithms that are able to automatically infer high-level content from data.",

Sudhir, Introduction, p 81.

Regarding **Claim 8**, while *Pingali* in view of *Pizano* and *Sudhir* disclose the apparatus

according to Claim 3, *Pingali* in view of *Pizano* and *Sudhir* do not teach wherein the play event

index information output section is configured to output the play event information items

together with instrument information items in a time sequence.

Sudhir discloses an automatic classification of tennis video for high-level content-based

retrieval (Introduction, p. 81) that teaches wherein the play event index information output

section (Table 3, p. 88) is configured to output the play event information items ("High-level

Annotation" column in Table 3) together with instrument information items ("BL" is "Baseline",

and thus the table indicates the location information from which the instrument was during the

serve) in a time sequence (the table suggests the arrangement of time sequence).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made for the apparatus of *Pingali* in view of *Pizano* and *Sudhir* to include wherein the play

event index information output section is configured to output the play event information items

together with instrument information items in a time sequence as taught by *Sudhir* as "there is

dire need for algorithms that are able to automatically infer high-level content from data.",

Sudhir, Introduction, p. 81.

Response to Arguments

[9]   Applicant's arguments filed on January 22, 2008 with respect to Claim 1 has been

respectfully and fully considered, but unpersuasive in view of the new ground of rejection in the

corrected Final Office Action.

Summary of Remarks regarding Claim 1

Applicant argues that from fig. 1 and the corresponding description, the second item of

claim 1 has not been disclosed (*i.e.* the "play even information obtaining section"). *Pingali*

discusses a trigger event, but does not mention the italicized part of item 2 (*i.e.* "from picture

information included in the contents"). That is, nowhere does *Pingali* disclose or fairly suggest

that the trigger event comes from picture information. To the contrary, it seems as though

Pingali must wait for a trigger input based on something other than picture information; perhaps

a human input. Once this happens then *Pingali* "executes a loop of capturing frames from the

camera pair. . . ." Thus, before the trigger event, *Pingali* does not teach capturing frames. Thus,

no picture information can be obtained before the triggering event. As such, it appears that the

triggering event cannot be based on picture information as required by Claim 1. (Applicant

Resp. at 12, Jan. 22, 2008.)

Claim 1 specifically requires an "<u>image substance</u> recognizing section" (*emphasis added*).

Keeping track of a changing game score is not recognizing the substance of an image. The

Examiner must point to how an image is being recognized. Applicant respectfully submits that

that this claimed feature is not disclosed or fairly suggested in *Pingali*. (Resp. at 13.)

Furthermore, the substance of the image must be "provided by the play event

information," as required by Claim 1. The play event information, as indicated above contains

picture information. As required in Claim 1, this picture information may be in the form of "score

information displayed on a screen." Claim 1 requires the "image substance recognizing section"

to recognize an image (*i.e.* a score), that is displayed on a screen. Nowhere is it apparent that

Pingali discloses or fairly suggests this feature. As *Pingali* is not concerned with image

recognition, but appears to be dealing with image tracking, there is no reason for *Pingali* to deal

with an "image recognition section." (Resp. at 13.)

Examiner's Response regarding Claim 1

Applicant's arguments with respect to claim 1 has been considered but are unpersuasive

in view of the new ground of rejection ("Virtual Replays and Visualization" section of *Pingali*).

See section 10, Examiner's Response regarding Claim 1 for further detail in response to

Applicant's arguments filed on July 18, 2008 below.

[10]   Applicant's arguments filed on July 18, 2008 with respect to Claim 1 has been

respectfully and fully considered, and not found persuasive.

Summary of Remarks regarding Claim 1

Regarding the second element of claim 1, as labeled above, Applicant notes that the play

event information obtaining section of claim 1 obtains information "indicative of a characteristic

movement of each of the players." In *Pingali,* the disclosure seems to only be concerned with

"ball tracking." That is, Applicant respectfully submits that *Pingali* does not disclose obtaining

movement information from each of the players. As such, this feature of independent claim 1 is not disclosed or fairly suggested by the cited references.

Regarding the third element of claim 1, the "image substance recognition section," the Examiner maintains his position. However, as indicated in the response dated January 22, 2008, it does not appear that the cited references disclose the claimed invention. Specifically, claim requires a "comparison" step between score information obtained immediately before and after play event information.

While the Examiner believes the references disclose a play event information obtaining section, and an image substance recognizing section, there does not appear to be any support comparing two images to one another and determining the substance of an image provided by the play event information based on said comparison. (Applicant Resp. at 4-5, July 7, 2008.)

Examiner's Response regarding Claim 1

Regarding the first element of claim 1, the claim language is broad enough to include the ball tracking feature of *Pingali*. The ball tracking feature of *Pingali* includes recorded scores and paths of balls throughout the match. The exact ball path and contact with the court is <u>indicative</u> of scores of the respective players (*e.g.*, fig. 3). The ball hitting within or outside the marked bounds is <u>indicative</u> of a score. The Examiner suggests amending the first element such that there is a clear definitive description that the <u>actual</u> score is being read.

Regarding the second element of claim 1, the claim language is broad enough to include the ball tracking feature of *Pingali*. Information including the path and location where the ball hits the court is play event information. This play event information is again <u>indicative</u> of a characteristic movement of the players. A ball being projected into the opposite side of the court

is indicative that a particular player hit it, which is a characteristic movement of the player. The Examiner suggests amending the first element such that there is a clear definitive description that information is being recognized from the player's <u>actual</u> movement (*e.g.*, a volley).

The Examiner notes that the argument of "comparing two images to one another" for the play event information obtaining section is not in the claim language. The claim is broad enough to not include such a limitation, which *Pingali* appears not the anticipate.

<u>The Examiner further notes</u> that the score information obtaining section and play event information obtaining section is nothing more than a recording of a tennis match. A recorded tennis match would inherently include "score information <u>indicative</u> of scores", "play event information <u>indicative</u> of a characteristic movement of each of the players", and "score information" (*emphasis added*). Furthermore, a recording of the path of a tennis ball which correlate directly with the score of the match reads on an image substance recognizing section. The Examiner suggests limitations to acquiring the actual score information, and using that actual score information to compare definitive score information items.

Conclusion

[8]   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(i) Gong et al., Automatic Parsing of TV Soccer Programs, Proc. Int'l Conf. On Multimedia Computing and Systems, pp. 167-168, 1997;

(ii) Saur et al., <u>Automated Analysis and Annotation of Basketball Video</u>, Store and Retrieval for Image and Video Databases V, SPIE Vol. 3022, pp. 176-187, 1997; and

(iii) Sudhir et al., <u>Automatic Classification of Tennis Video for High-Level Content-Based Retrieval</u>, Proc. Of IEEE Workshop on Content-Based Access of Image and Video Databases, CAIVD'98, 1998.

[11]   THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

[9]   Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID P. RASHID whose telephone number is (571)270-1578. The examiner can normally be reached Monday - Friday 7:30 - 17:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on (571) 272-74155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David P. Rashid/
Examiner, Art Unit 2624

David P Rashid
Examiner
Art Unit 26244

/Vikkram Bali/
Supervisory Patent Examiner, Art Unit 2624